

spherical contrasted at the base into a short scaly stalk; scales appressed-pubescent, but glabrous at the margin and apex; nut oval, 6-7 lines long, striate, glabrous.

ARNOLD ARBORETUM.

EXPLANATION OF PLATE 24. — *Quercus ilicifolia* × *velutina* from Blue Hill: fig. 1, fruiting branch; *Q. ilicifolia* × *velutina* from Ocean Grove: fig. 2, leaf; *Q. coccinea* × *ilicifolia*: fig. 3, acorn; fig. 4, leaf. All figs. one half natural size.

TWO MUSHROOM BOOKS.

To amateurs of mushrooms, who have found the literature of the subject at times hopeless and dreary, a little volume¹ recently published in Philadelphia should bring recreation and entertainment. Inspired to see, with Emerson, that "a poor fungus or mushroom . . . is the symbol of the power of kindness," the authors of the modest volume were led by the difficulties that beset the path to knowledge to think of the trials and distress of others that might follow in their footsteps. How could they help them? "This little book is the answer." "Let us give our own experience," they said, and they have told it in language as simple as it is diverting.

To review the book seriously would be cruel. It is not meant to be reviewed, but to be read and enjoyed, in the spirit in which the authors carried on their studies. By quotation, however, the true value of the book to the weary student can, perhaps, be indicated. "We began for pleasure and recreation, but it became irksome and fatiguing, and the subject which might have amused us . . . is put aside and abandoned."

The introduction transports us from "the bustling, noisy streets of a city into the quiet fields and woods, where the bright-hued mushrooms" invite us to "the discovery of new specimens, the learning of their names, the knowledge of their curious organizations" which "will all add an interest to our lives." "Among the fallen leaves — peers out a bright yellow mushroom." We dig it up. "We have brought a basket and trowel and can examine them thoroughly."

¹ Among the Mushrooms. A Guide for Beginners. Emma L. Dallas and Caroline A. Burgin, Philadelphia, 1900; Drexel Biddle, Publisher. pp. 175, \$2.00.

From the woods we pass presently to the study, to learn that "Fungi have existed from early geological ages," the oldest known Hymenomycete, being the one that "was called *Polyporites Bowmanii*." "It is interesting to know that even before the Tertiary period the undergrowth consisted of ferns and fleshy fungi. What a time of delight for the botanist! But there were no human beings in those days to roam amongst that luxuriant undergrowth, and only the fossil remains in the deposits of coal and peat are left to tell of their former existence." Alas! Untimely fate of early man!

Under various heads follows much information as to structure, habit, etc., that can be gathered rather better from other books. No where else, however, can we learn that the "group of Basidiomycetes is divided into (1) Stomach fungi, (2) Spore sac fungi, and (3) Membrane fungi"; or that in Agarics the gills "contain the spores"; or that the trama "lies between the two layers of gills in Agarics."

In an outline of the system of classification, the principal genera are briefly characterized, and the meanings of their names are elucidated. The student may here learn much that no lexicon will ever reveal to him: that *Lactarius* = milk; *Marasmius* = to wither; *Cortinarius* = a veil; and *Telamonia* = lint. Having worked through the genera in this way, the authors proceed to give descriptions "of fungi familiar to most persons, classified according to the colors of the cap." The list begins with *Russula emetica*,¹ described, as is not unusual, in such a way as to make it very doubtful whether the writers know the species. Thus, no mention is made of its viscidly, and it is said to grow "among dead leaves, in the woods and open places from July to December." *Cortinarius alboviolaceus*, the last species in the list, exemplifies a prevalent uncertainty in the handling of the Latin names. Then follows "a list of fungi that we constantly see, but which cannot be classified by the color of the cap." Here we find much curious information, as in regard to *Clavaria flava*: "Stevenson does not mention this species, so it may be peculiar to this country." Of the Jew's Ear we learn a new habitat: "It is a very peculiar-looking fungus, shaped somewhat like the human ear, of all sizes, and grows in great quantities in the same place."

But it is impossible, even by continuing to quote, to give the charm

¹ See note by Dr. Burt in *RODORA* 2: 71; March, 1900.

of this modest and kindly attempt to smooth the way to knowledge. Only the possession and leisurely perusal of the little volume will reveal its unique character.

Quite different must be the attitude of a reviewer to the latest book placed before the public.¹ Written by a person with botanical training, "The Mushroom Book," lays claim, or should, to scientific accuracy and method. It is, to be sure, avowedly a popular book. The publishers would have wished to undertake no other kind. But even popular books can and should be scientific, in the true meaning of the word, that is to say, they should present facts accurately and systematically.

The book makes an admirable first impression, due to the amplitude of the pages and spacing, the broad margins, clear printing sharply outlined cuts, and excellent plates. The publishers indeed, have done their work well. Examination of the book unfortunately, effaces this good impression. The introductory matter, it is true, is on the whole well arranged and expressed, especially the chapter headed "From Spore to Mushroom." The Key which follows, too, is made intelligible to the novice by abundant diagrams illustrating the terms employed. It is with the bulk of the book, the hundred pages descriptive of genera and species, that fault must be found. Here there is absolute confusion. Groups, and genera under groups, are taken up, as it seems, haphazard. In the white-spored series of Agarics, for instance, the first five genera in order are Amanita, Cantharellus, Amanitopsis, Mycena and Lentinus, and the last five are Schizophyllum, Omphalia, Russula, Clitocybe and Tricholoma. Whatever may have determined this succession, it was not the probable convenience of the student, for no knowledge of any principle of classification will guide him when he wishes to refer to the description of a species and, if he has no such knowledge, he is not likely to be assisted as his familiarity with the order of the plates increases.

As to the character of the descriptions, it is very evident, even without the acknowledgment in the preface, that they do not imply any acquaintance on the part of the author with the plants themselves. And this criticism applies with special force to such species

¹ The Mushroom Book, by Mina L. Marshall, New York, Doubleday, Page & Co., 1901, pp. 167. \$3.00.

as *Russula emetica*, which demand the most accurate treatment. Nothing is said by Miss Marshall, any more than by the authors of "Among the Mushrooms," of the viscidness characteristic of this plant. In fact no mention of this character is made under the genus, and yet it is of the utmost importance in distinguishing between species. The author's final remark that *Russula emetica* "may readily be distinguished by its peppery taste," betrays ignorance of the existence of other red species that are also acrid. She seems, indeed, to share the too common conviction, that any acrid red *Russula* is *R. emetica*. Her treatment of the yellow *Amanitas* is dangerous. The final recommendation in regard to them — that those with a cup are edible — is most unwise, for its application may not be restricted by careless people — those most exposed to danger.

Another instance of inaccuracy is in the statement, in regard to the genus *Hygrophorus*, that the gills are decurrent. Although this is true of many conspicuous species, so that an incorrect impression is easily gained by an unobservant person, it is by no means universally or even generally the case. Examination of some common species, *H. miniatus*, *H. puniceus*, *H. conicus* and *H. chlorophanus*, for instance, will show an entirely different state of things. A few pages further on we are told under *Lepiota procera*, that "there is no poisonous species for which it can be mistaken, if one bears in mind" its structural characteristics. Has the author never heard of *Lepiota Morgani*, a dangerous species, which a tyro would easily mistake for *L. procera*? Another source of dissatisfaction with the descriptions is their extreme scantiness in some cases. The characterization of some genera is so slight as to amount to nothing at all; examples are *Pholiota*, *Panaeolus* ("black, ovoid spores, cap smooth and not striate, a fleshy stem"), *Physalacria*, ("small, simple, hollow, and enlarged at the apex"), *Lachnocladium* ("leathery plants covered with hairs") and *Trametes*.

The discovery of other inaccuracies and omissions of this kind must be left to the readers. One conspicuous tendency to misinform the uninstructed must however be mentioned. We all know the popular difficulty caused by Latin names. Recognizing this, the author, as her preface states, makes a point of marking the length of vowels and the place of accents. If her desire has been to record prevalent errors in the pronunciation of Latin, she has been remarkably successful. But she should have been surer of her ground

before setting models that, if they have any effect, will tend to confirm some illiterate usages and establish others quite new. Whatever may be said of generic names, which often, as in the case of the American pronunciation of *Coprínus*, permanently escape from the control of the laws of quantity, there will never be but one correct way to spell and to accent specific names when they are formed by Latin adjectives. In spite of Miss Marshall, then, and those whose usage she records, it is incorrect to say *rádicans*, *calópus*, *édulis*, *velútinus*, *próccera*, *caesaréa*, and *albídum*, just as truly it is incorrect to write *velutipas* or *cretaceous*. This sort of thing becomes ludicrous when for *Fávolus alveolaris* (the original spelling) is recommended *Favólus areolaris*.

The best thing about the book is the series of plates, around which the text is built. They are from the work of Mr. J. A. and Miss H. C. Anderson, whose colored photographs have been much admired. Only a few of these (*Armillaria mellea*, *Clavaria formosa*, *Boletinus pictus*, *Calostoma cinnabarinum*, for instance) fail to do justice to the plants. The rest are admirable. It is a noteworthy performance to have the three species of *Calostoma*, so long disputed, clearly differentiated on one plate. Yet the plates have been badly handled. They are not numbered, and some species are far removed from the places where they occur in the text.

It would be pleasant to find less to say in condemnation of a work like "The Mushroom Book." Its publishers are pushing it hard as the best book on the market. It is said to be selling well, and there is reason to fear that it is.

TWO ADDITIONS TO THE FLORA OF CONNECTICUT.—Last summer the writer found, in Hartford, the following plants which do not appear to have been previously reported as occurring in Connecticut:

Scleria pauciflora Muhl. A patch about a rod square on Kenney Park, Hartford, in dry sandy land sloping to the south.

Panicum sphaerocarpon Ell. In several places in Hartford, always in dry land. Appears to be quite common.—HANS J. KOEHLER, Hartford, Connecticut.

BOTRYCHIUM MATRICARIAEFOLIUM ON MT. TOBY, MASSACHUSETTS.—In Mrs. Owen's interesting account of the ferns of Mt. Toby in the March number of RHODORA, it is stated that *Botrychium matri-*